B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
III Year V Semester
Core Major - Paper XII
MICROPROCESSOR ARCHITECTURE AND PROGRAMMING

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What are the basic digits of hexadecimal number system?
2. What is the need of control bus in microprocessors?
3. Mention the uses of HOLD and HLDA pins.
4. Why data bus is bidirectional?
5. How many instructions are available in 8085.
6. Which group of instruction affects the flags?
7. Give the bit pattern of RIM instruction.
8. Write any two instructions which will clear the accumulator.
9. Give any two advantages of assembler.
10. Write an assembly language program to find the sum of two 8 bit numbers.
11. List the features of static RAM.
12. Where is READY signal used?

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Compare static RAM and DRAM.
14. Explain the functions of the following pins.
(a)ALE (b)IO/$\bar{M}$ (c)$\bar{R}\bar{D}$ and (d) $\bar{W}\bar{R}$
15. Explain arithmetic instructions of 8085 with examples.
16. Explain the functions of SIM instruction
17. Write an ALP for 8bit division.
18. What are different registers in 8085?
19. Convert the following decimal numbers to hexadecimal number. (a)48_{10} (b)139_{10} (c) 1024_{10} and (d)88.525_{10}

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Explain system bus and bus structure with a neat diagram.
21. Describe the architecture of 8085 in detail with a neat diagram.
22. Explain data transfer instructions in 8085.
23. Discuss the addressing modes in 8085.Give two examples for each mode.
24. Write an ALP to arrange an array of data in ascending order.

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